

Application Serial No. 10/669,913
Reply to Office Action of December 27, 2006

PATENT
Docket: CU-3369

Amendments To The Claims

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently amended) A liquid crystal display device comprising:
 - an analog voltage signal generator storing an input synchronous signal and storing a plurality of data values, which represent a plurality of input digital data signals in response to a write enable signal, said analog voltage signal generator also and converting the stored digital data signals into a plurality of different analog voltage signal pairs in response to an output enable signal;
 - a plurality of reference voltage generators for dividing a boosted source voltage according to the analog voltage signal pairs from the analog voltage signal generator to generate a plurality of reference voltages; and
 - a source driver circuit for receiving the plurality of reference voltages from the plurality of reference voltage generators,
wherein a digital/analog converter of the analog voltage signal generator changes a reference voltage value and outputs a changed value reference voltage to the reference voltage generators, to thereby change a contrast ratio according to changed reference voltage values when a command to change a reference voltage value is transferred to the digital/analog converter.

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2. (Currently amended) A liquid crystal display device as claimed in claim 1, wherein the analog voltage signal generator includes:

a data storage section, which stores storing the input synchronous signal and which stores the plurality of input digital data signals in response to the write enable signal;

the digital/analog converter converting the plurality of input digital data signals stored in the data storage section into a plurality of analog signals in response to the input synchronous signal when the output enable signal is generated; and

a buffer amplifier amplifying the plurality of input analog signals and outputting the plurality of analog voltage signal pairs.

3. (Original) A liquid crystal display device as claimed in claim 2, wherein the data storage section stores a fixed reference voltage signal pair according to voltage-transmission factor curve feature, and the digital/analog converter changes the fixed reference voltage signal pair stored in the storage section in response to an external reference voltage change command and outputs a changed reference voltage.

4. (Original) A liquid crystal display device as claimed in claim 1, wherein the plurality of reference voltage generators include a plurality of resistors connected to each other in series between a power supply terminal and a ground terminal for generating the plurality of reference voltages.